

200314456-1

10/772,999

**REMARKS**

This is a full and timely response to the non-final Official Action mailed May 19, 2005. Reconsideration of the application in light of the above amendments and the following remarks is respectfully requested.

By the forgoing amendment, the specification and various claims have been amended. New claims 52 and 53 have been added, and original claims 17, 18 and 42-45 have been cancelled. Thus, claims 1-16, 19-41 and 46-53 are currently pending for further action.

**ALLOWABLE SUBJECT MATTER:**

In the recent Office Action, the Examiner indicated the presence of allowable subject matter in claims 10-13, 15, 16, 27-30, 32, 37, 38 and 41. Applicant wishes to thank the Examiner for this identification of allowable subject matter.

Accordingly, claims 10-12, 15, 27, 28, 29, 32, 37 and 38 have been amended herein and rewritten as independent claims. Consequently, based on the Examiner's identification of allowable subject matter, claims 10-13, 15, 16, 27-30, 32, 37 and 38 should be in condition for immediate allowance following entry of this amendment.

200314456-1

10/772,999

**OBJECTIONS TO SPECIFICATION AND CLAIMS:**

The disclosure was objected to in the recent Office Action on the grounds that the "condenser lens system" of claim 9 and the "reflector" of claim 12 are not disclosed in the specification. Applicant respectfully disagrees.

The "condenser lens system" is described in, for example, paragraph 0017 of Applicant specification as originally filed. The "reflector" is described in, for example, paragraph 0043 of Applicant specification as originally filed. Consequently, the original specification adequately supports the recitations of claims 9 and 12, and notice to that effect is respectfully requested.

Claim 43 was objected to due to a minor informality. This objection is rendered moot by the cancellation of claim 43 herein.

**PRIOR ART:**

Claims 39, 46 and 47 are rejected as anticipated under 35 U.S.C. § 102(b) by U.S. Patent No. 6,252,636 to Bartlett ("Bartlett"). Claims 40 and 48 were rejected as unpatentable under 35 U.S.C. § 103(a) in view of the combined teachings of Bartlett and U.S. Patent No. 6,341,876 to Moss et al. ("Moss"). These rejections are respectfully traversed for at least the following reasons.

Claim 39 recites:

A light projection system comprising:  
a projection lamp;  
a colored lighted source; and  
a total internal reflection prism receiving light from both said projection lamp and said colored light source;  
wherein light from said projection lamp and said colored light source is blended by said total internal reflection prism to produce a projection light beam.

200314456-1

10/772,999

In contrast, Bartlett does not teach or suggest the claimed prism that blends light from the projection lamp and colored light source.

With reference to Fig. 1, Bartlett teaches a first lamp (50) and a second lamp (40). Both lamps produce white light which is directed to a beam-splitter (46) that passes a particular color component from the light of each lamp. According to Bartlett, "lamp 40 generates white light towards a dichroic filter or beam splitter 46. This beam splitter reflects the red component of the incident light towards a first condenser lens 48, and passes the blue and green components of the white light. Lamp 40 is pulse driven only when the red segment 24 of color wheel 26 is being illuminated." (Bartlett, col. 4, lines 55-61). "Lamp 50 is pulse driven by the pulsed drive output 16. Lamp 50 generates and directs white light to beam splitter 46, whereby the green and blue components of the incident light is transmitted therethrough, with the red component of the light being reflected away from lens 48. Lamp 50 is driven by pulsed power supply 12 and generates light only when the blue and green segments 24 of color wheel 26 are advanced to color the incident light focused thereon by optics lens 48." (Bartlett, col. 4, line 62 - col. 5, line 4).

The light is eventually directed to a TIR prism (60). However, the light from the two lamps is not blended by the prism (60) as claimed. In fact, the light from the two prisms is *never* blended at all. As mentioned, the lamps (50 and 40) are driven by a pulsed power supply (12). As described in the quotes above and shown graphically in Fig. 2 of Bartlett, the two lamps are alternately pulsed, never being on at the same time. Consequently, the Bartlett reference fails to teach or suggest the claimed system in which light from a projection lamp and a colored light source is blended by a total internal reflection prism to produce a projection light beam.

200314456-1

10/772,999

"A claim is anticipated [under 35 U.S.C. § 102] only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). See M.P.E.P. § 2131. For at least this reason, the rejection of claims 39 and 40 based on Bartlett should be reconsidered and withdrawn.

Similar to claim 39, claim 46 recites:

A system for correcting a color of a light source comprising:  
means for emitting a first light;  
means for emitting a second light; and  
a total internal reflection prism for integrating said first and second lights;  
wherein said second light has a color substantially lacking from said first light.

As demonstrated above, Bartlett fails to teach or suggest a total internal reflection prism for integrating first and second lights as claimed. Moreover, Bartlett fails to teach or suggest that "said second light has a color substantially lacking from said first light" as recited in claim 39. As noted above, both lamps (40 and 50) taught by Bartlett emit white light and are, apparently, substantially identical.

Consequently, Bartlett fails to teach or suggest the features of claim 46. Again, "[a] claim is anticipated [under 35 U.S.C. § 102] only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). See M.P.E.P. § 2131. For at least this reason, the rejection of claims 46-48 based on Bartlett should be reconsidered and withdrawn.

Claims 19 and 20 were rejected as unpatentable under 35 U.S.C. § 103(a) over Bartlett, taken alone. For at least the following reasons, this rejection is respectfully traversed.

200314456-1

10/772,999

Similar to claim 39, claim 19 recites:

A method of correcting a color of a light source comprising:  
emitting light from a first light source into a total internal reflection (TIR) prism;  
emitting light from a second light source into said TIR prism; and  
integrating light from said first and second light sources with said TIR prism;  
wherein light from said second light source has a color substantially lacking from the light from said first light source.

As demonstrated above, Bartlett does not teach or suggest integrating light from first and second light sources with a TIR prism or any other element. Moreover, Bartlett does not teach or suggest that light from a second light source has a color substantially lacking from the light of the first light source. Consequently, Bartlett fails to teach or suggest the features of claim 19.

"To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)." M.P.E.P. § 2143.03. Accord. M.P.E.P. § 706.02(j). For at least this reason, the rejection of claims 19 and 20 based on Bartlett should be reconsidered and withdrawn.

Claims 21, 22, 31, 49 and 50 were rejected as anticipated under 35 U.S.C. § 102(b) by U.S. Patent No. 5,796,526 to Anderson ("Anderson"). Claims 23-26 and 33-36 were rejected as being unpatentable under 35 U.S.C. § 103(a) in view of the combined teachings of Anderson and Moss. For at least the following reasons, these rejections are respectfully traversed.

Claim 21 recites:

A light integrating system comprising:  
at least one total internal reflection (TIR) prism disposed along an optical axis, said at least one prism receiving light from two different directions from at least two different light sources; and  
a reflector disposed along said optical axis for receiving light from one of said light sources through said TIR prism and reflecting that light from said TIR prism

200314456-1

10/772,999

back through said TIR prism and down said optical axis such that said TIR prism blends the light from said light sources.

Claim 49 similarly recites:

A light integrating system comprising:  
at least one total internal reflection (TIR) prism disposed along an optical axis, said at least one prism receiving light from two different directions from at least two different light sources; and  
means for reflecting light disposed along said optical axis for receiving light from one of said light sources through said TIR prism and reflecting that light from said TIR prism back through said TIR prism and down said optical axis such that said TIR prism blends the light from said light sources.

In contrast, Anderson does not teach or suggest the claimed systems in which a TIR prism is "receiving light from two different directions from at least two different light sources" and a reflector or means for reflecting light that is disposed for "for receiving light from one of said light sources through said TIR prism and reflecting that light from said TIR prism back through said TIR prism and down said optical axis such that said TIR prism blends the light from said light sources."

Again, "[a] claim is anticipated [under 35 U.S.C. § 102] only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). See M.P.E.P. § 2131. For at least this reason, the rejection of claims 21 and 49, and their respective dependent claims, based on Anderson should be reconsidered and withdrawn.

Claim 31 recites:

A light integrating system comprising:  
a first plurality of total internal reflection (TIR) prisms disposed along an optical axis; and

200314456-1

10/772,999

a second plurality of TIR prisms arranged along said first plurality of prisms, but not on said optical axis, each of which is disposed adjacent to and optically coupled with one of said first plurality of TIR prisms.

In contrast, Anderson fails to teach or suggest the claimed first and second pluralities of TIR prisms with the first being "disposed along an optical axis" and the second being "arranged along said first plurality of prisms, but not on said optical axis," with each of the second plurality being "disposed adjacent to and optically coupled with one of said first plurality of TIR prisms." Anderson only teaches that all prisms are on the optical axis. (Anderson, Fig. 3).

Again, "[a] claim is anticipated [under 35 U.S.C. § 102] only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). See M.P.E.P. § 2131. For at least this reason, the rejection of claim 31 and its dependent claims, based on Anderson should be reconsidered and withdrawn.

Claims 1, 2, 4, 6-9 and 44 were rejected as being anticipated under 35 U.S.C. § 102(b) by Moss. To the extent that this rejection applies to claims 42-45, the rejection is rendered moot by the cancellation herein of those claims.

Claim 1 has been amended to include some of the recitations of claim 3. Consequently, the rejection that should now apply to claim 1 and its dependent claims is the rejection of claim 3 as unpatentable under § 103(a) over the combined teachings of Moss and U.S. Patent No. 4,322,128 to Brake ("Brake"). For at least the following reasons, that rejection is respectfully traversed.

200314456-1

10/772,999

Claim 1 recites:

A light integrating system comprising:  
at least one total internal reflection (TIR) prism; and  
a light integrating device disposed to collect and homogenize light exiting  
from said TIR prism;  
wherein surfaces of said at least one TIR prism that are not on an optical axis  
of said system have a coating to minimize light loss.  
(emphasis added).

Applicant notes that, under the language of claim 1, surfaces of the TIR prism that are  
*not* on the optical axis of the system are coated to minimize light loss.

Moss, at Fig. 7, teaches a system in which a prism (709, 711) receives light from a  
light source (701, 703) along an optical axis and bends that light, and the optical axis, into an  
integrator rod (705).

Brake teaches applying a coating only to the "hypotenuse surface of the prism."  
"Where the angular field of view is such that any of the ray angles within the prism are less  
than the critical angle for total internal reflection, the hypotenuse surface of the prism may be  
coated with silver, aluminium or other reflecting material." (Brake, col. 4, line 67 – col. 5,  
line 3).

Thus, if the teachings of Moss and Brake are combined as proposed in the Office  
Action, the result would be a reflective coating, as taught by Brake, on the hypotenuse surface  
of the prisms (709, 711) taught by Moss. Those hypotenuse surfaces are on the optical axis of  
the system and, as mentioned, direct light into an integrator rod.

Consequently, the combination of Moss and Brake does not teach or suggest the  
claimed "wherein surfaces of said at least one TIR prism that are not on an optical axis of said  
system have an aluminized coating to minimize light loss." "To establish prima facie  
obviousness of a claimed invention, all the claim limitations must be taught or suggested by  
the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)." M.P.E.P. § 2143.03.



200314456-1

10/772,999

Accord. M.P.E.P. § 706.02(j). For at least this reason, the rejection of claim 1 and its dependent claims should be reconsidered and withdrawn.

Claim 5 was rejected as unpatentable under 35 U.S.C. § 103(a) over the combined teachings of Moss and U.S. Patent No. 6,419,365 to Potekev et al. Claim 14 was rejected as unpatentable under 35 U.S.C. § 103(a) over the combined teachings of Moss and Anderson. These rejections are respectfully traversed for at least the same reasons given above with respect to claim 1 from which both claims 5 and 14 depend.

Claims 17 and 18 were rejected as being unpatentable under 35 U.S.C. § 103(a) over the teachings of Moss taken alone. This rejection is rendered moot by the cancellation herein of claims 17 and 18 without prejudice or disclaimer.

200314456-1

10/772,999

**CONCLUSION:**

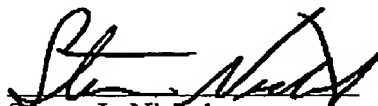
The newly added claims are thought to be patentable over the prior art of record for at least the same reasons given above with respect to the original independent claims.

Therefore, examination and allowance of the newly added claims is respectfully requested.

For the foregoing reasons, the present application is thought to be clearly in condition for allowance. Accordingly, favorable reconsideration of the application in light of these remarks is courteously solicited. If the Examiner has any comments or suggestions which could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the number listed below.

Respectfully submitted,

DATE: 12 August 2005



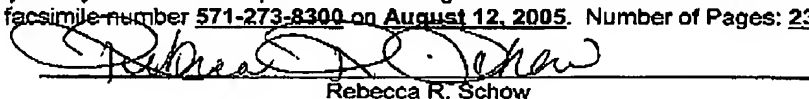
Steven L. Nichols  
Registration No. 40,326

Steven L. Nichols, Esq.  
Managing Partner, Utah Office  
**Rader Fishman & Grauer PLLC**  
River Park Corporate Center One  
10653 S. River Front Parkway, Suite 150  
South Jordan, Utah 84095

(801) 572-8066  
(801) 572-7666 (fax)

**CERTIFICATE OF TRANSMISSION**

I hereby certify that this correspondence is being transmitted to the Patent and Trademark Office facsimile number 571-273-8300 on August 12, 2005. Number of Pages: 23

  
Rebecca R. Schow